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# RELIABILITY PREDICTION

**Model : SP-150** Data:2000-01-11

| Style | Part Type | Q'ty | $\lambda_g$ | $\pi_Q$ | $\lambda_{eg}$ | % |
|---|---|---|---|---|---|---|
| 9.1 | Resistor-Film, Insulated (RL) | 50 | 0.003700 | 10 | 1.850000 | 35.380 |
| 9.1 | Resistor-Wirewound Power (RW) | 1 | 0.008500 | 10 | 0.085000 | 1.626 |
| 9.1 | Resistor-Film, Variable (RVC) | 1 | 0.040000 | 10 | 0.400000 | 7.650 |
| 9.1 | Resistor-Thermistor (RTH) | 1 | 0.001400 | 10 | 0.014000 | 0.268 |
| 10.1 | Capacitor-Metal, Plastic (CH) | 5 | 0.000510 | 10 | 0.025500 | 0.488 |
| 10.1 | Capacitor-Ceramic(Gen.) (CK) | 18 | 0.001700 | 10 | 0.306000 | 5.852 |
| 10.1 | Capacitor-Aluminum Dry (CE) | 12 | 0.001300 | 10 | 0.156000 | 2.983 |
| 6.1 | Diode-Switching | 12 | 0.000940 | 8 | 0.090240 | 1.726 |
| 6.1 | Diode-Fast Recovery Power Rectifier | 5 | 0.023000 | 8 | 0.920000 | 17.594 |
| 6.1 | Diode-Power Rectifier / Schottky Power | 4 | 0.002800 | 8 | 0.089600 | 1.714 |
| 6.1 | Diode-Voltage Ref/Reg. (Avalanche & Zener) | 5 | 0.003300 | 8 | 0.132000 | 2.524 |
| 6.1 | Diode-Transient Suppressor/Varistor | 3 | 0.002900 | 8 | 0.069600 | 1.331 |
| 6.10 | Diode-Thyristor/SCR | 1 | 0.002500 | 8 | 0.020000 | 0.382 |
| 6.3 | Transistor-Power NPN/PNP | 1 | 0.005700 | 8 | 0.045600 | 0.872 |
| 6.4 | Transistor-MOSFET | 2 | 0.014000 | 8 | 0.224000 | 4.284 |
| 6.11 | OPTO-isolator | 2 | 0.027000 | 8 | 0.432000 | 8.262 |
| 6.11 | OPTO-Emitter | 1 | 0.000470 | 8 | 0.003760 | 0.072 |
| 5.1 | Linear Microcircuits | 3 | 0.009500 | 10 | 0.285000 | 5.450 |
| 11.1 | Transformer Switching | 1 | 0.000610 | 3 | 0.001830 | 0.035 |
| 11.2 | Coil Fixed inductor or choke | 3 | 0.000032 | 3 | 0.000288 | 0.006 |
| 17.1 | Single Connections-Reflow solder | 353 | 0.000069 | 1 | 0.024357 | 0.466 |
| 17.1 | Fuses Clip-Clip Termination | 2 | 0.000120 | 1 | 0.000240 | 0.005 |
| 22.1 | Fuses | 1 | 0.010000 | 1 | 0.010000 | 0.191 |
| 16.1 | Plated Through Hole Circuit Boards | 1 | 0.022000 | 2 | 0.044000 | 0.841 |
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| **Total Failure rate:** | | | | | 5.229015 | 100% |

- **Data Base: MIL-HDBK-217F ,Notice 2, Parts Count**
- **Env.: GB**

**MTBF:** 191240.61 **hrs**

Approved by: David Wang Compiled by: Kim Tseng .